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ANNUAL REPORT
OF THE
DEFENSE INTELLIGENCE SCHOOL
BOARD OF VISITORS

25 May 1970

1970

REPORT OF THE BOARD OF VISITORS
ON THE
DEFENSE INTELLIGENCE SCHOOL

INTRODUCTION

The annual spring meeting of the Board of Visitors was conducted at the Defense Intelligence School (DIS) on 23 and 24 March 1970. The agenda for the Board is shown in the enclosure. The morning of 23 March was spent at the Pentagon, while the remainder of the two-day meeting was held at the School in the Anacostia Annex, U.S. Naval Station, Washington, D.C. All eight members were present, as shown below in alphabetical order.

Admiral Arleigh A. Burke, USN (Ret)

Lieutenant General Clovis E. Byers, USA (Ret)

General Charles P. Cabell, USAF (Ret)

Dr. James C. Fletcher

Dr. Edward Katzenbach

Mr. Lyman B. Kirkpatrick, Jr.

Dr. Hugh F. McKean

Dr. Edward Teller

The Board was initially welcomed by Lieutenant General Donald V. Bennett, USA, Director of the Defense Intelligence Agency (DIA), and Captain Robert P. Fuller, USN, Commandant of the School. General Bennett, after emphasizing his personal interest in professional military education, asked the Board to pay special attention to the DIS academic programs, with particular emphasis on the pilot course of the Information Science Center (ISC) which was then in session. Captain Fuller then reported on the User Conference which was held at DIS in mid-January and which brought together for the first time in the School's history representatives from the military Services and all but one of the joint commands to discuss the role and curriculum of DIS. The members of the Board received two briefings: one on the present organization and educational program of the School, and the other on the curriculum of the new Integrated Intelligence Training Program which had been developed as a result of recommendations from the January User Conference and which will be inaugurated at the School in September 1970.

During the afternoon of the first day, Board members visited with students of the courses then being conducted at the School. Dr. Fletcher and Dr. Teller met with students of the pilot ISC

course, Information Science in Support of Intelligence Functions. Admiral Burke and Dr. McKean listened to student presentations in the mid-career Defense Intelligence Course; General Byers and Professor Kirkpatrick interviewed class representatives from the National Senior Intelligence Course; and General Cabell discussed attache problems with students from the Attache and Attache Staff Operations Courses.

The second day commenced with a working breakfast after which the Board reassembled in executive session, with the members discussing various aspects of the School, such as the new curriculum, the mission of the ISC, faculty qualifications, instructional methodology, and Service support for the School. The members re-elected General Cabell and General Byers to serve as Chairman and Vice-Chairman of the Board respectively, and commissioned them, together with [] at

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DIS, to prepare the draft report of the Board's meeting. The session concluded with an exit interview of the members by Rear Admiral Donald M. Showers, USN, Chief of Staff, DIA.

FINDINGS OF THE BOARD

The deliberations of the Board of Visitors encompassed a wide variety of topics during the two-day meeting. These have been

grouped together below under seven main subject headings. Where the stated views represent the opinions of three or less members, their names appear in parentheses after the appropriate comment. Where four or more members held the same view, the word "consensus" reflects a group observation.

1. Curriculum

The members of the Board gave their strong approval to the new Integrated Intelligence Training Program (IITP) which is currently under development at the School. The rearrangement of courses to form a progressive instructional program in joint intelligence at the entry, advanced, and executive levels was considered an important step in the right direction. (Consensus)

2. Information Science Center

a. The members expressed disappointment in being unable to gain from the Board meeting a satisfactory understanding for the mission and role of the ISC. Neither the purpose nor objectives of the Center emerged in any clearly defined manner from the discussions held on this subject. (Consensus)

b. The two-man team who interviewed students in the pilot "Functions" course reported that although a need existed for training in information science, the present program was not in

their opinion a first-rate course. Specifically, the course purpose was vague, excessive use had been made of guest lecturers, pure mathematics had been overstressed, realistic intelligence application was lacking, and there were inadequate seminars and relevant reading materials. (Dr. Fletcher and Dr. Teller)

c. Since the limited amount of time available at the regular meeting precluded any meaningful assessment or critique of the ISC, the Board felt that a special meeting should be held at an early date when a majority of the members would be in the Washington area. This supplemental meeting would devote itself exclusively to a discussion of ISC problems in an effort to give guidance and direction to this new undertaking. (Consensus)

3. Faculty Qualifications

The Board noted that too few of the DIS faculty possessed the desired academic qualifications and experience level and that ^(unmitigated) this mitigated against a quality instructional program. (Consensus)

a. Several members felt that the small number of Ph.D. degrees on the School staff was unacceptable. (Admiral Burke, Dr. Fletcher, and Dr. McKean)

b. The degree level overall at DIS rated unfavorably with that at other comparable educational institutions operated within the

Department of Defense. (Dr. Katzenbach and Dr. Teller)

c. Officers assigned to the School lack adequate experience in intelligence and/or background as military intelligence staff officers. Intelligence experience is one essential quality which cannot be recruited or replaced. (General Cabell and Professor Kirkpatrick)

d. Faculty are not properly trained for instructor assignments. (Dr. Fletcher)

e. Visiting Professors should be used to enhance the faculty's qualifications, and instructor training courses should be utilized to the maximum. (General Byers)

f. More officers with recent intelligence experience in Viet Nam are required on the faculty. (Professor Kirkpatrick)

4. Instructional Methodology

A variety of criticisms was made of the instructional techniques employed in DIS academic programs. These included over-use of the lecture, heavy reliance on visitors and guest speakers, and seminars run by sometimes unqualified members of the faculty. The following suggestions were offered to improve pedagogy and maximize learning:

a. Since some students learn better by listening than by

reading, cassette recordings of basic unclassified information about the School and of introductory lectures in intelligence should be prepared and sent to students in advance of their reporting date. Upon arrival, students would be better informed and prepared to undertake more challenging and advanced studies. (Dr. McKean)

b. Lectures should be confined to the mornings, with greater afternoon use of student involvement activities such as seminars, panels, exercises, and readings. (Consensus)

c. Seminars should be more extensively employed to exploit student knowledge. These should be essentially student run and faculty graded, utilizing experienced students as seminar leaders. (General Byers and Dr. Teller)

d. Guest lecturers should be largely restricted to the use of prominent speakers as motivators at strategic places within the course. More in-house presentations would provide greater continuity and integration of subject matter content. (Admiral Burke)

5. Administration

Two items of academic administration that appear to need resolution are student/faculty security clearances and the assignment of special students.

a. In the first instance, frequently the relevant faculty member does not possess a security clearance appropriate to the subject under instruction. In particular, DIS appears to have only a limited number of faculty billets authorized at the SI/SAO level. It would appear that instruction in the new IITP would also benefit if restraints were not imposed by failure to grant access to security information at the above levels. (General Cabell)

b. With respect to "special students;" that is, those students who report late or depart early and who therefore attend only limited portions of a class; the problem appears particularly acute with the Attache Course. This practice has been a persistent one since the Defense Attache System came into existence in 1965. Special students who enter late not only themselves do not receive the instruction that they require but are a disruptive influence on the regular class. Student selection criteria should be respected more closely by the nominating Services. The DIS Commandant should conduct the courses so that only the special student suffers. (General Cabell)

6. Service Support

a. In addition to the special student problem as noted above, the support of the DIS academic programs by the Military Departments needs improvement in other areas. Some Services

appear less than anxious to send students to DIS. Part of this reluctance to participate may result from the fact that the business of schooling intelligence personnel is grossly fragmented within the Intelligence Community. In addition to DIS, all Services, the National Security Agency, and the Central Intelligence Agency, among others, conduct their own intelligence schools and training programs. Some of this is necessary to differentiate between such areas as technical training, tradecraft, and staff intelligence; however, consideration should be given by the Community to maximum feasible concentration of those courses susceptible to common treatment at one joint school with accompanying integration of faculty and resources. (General Cabell and Dr. Katzenbach)

b. In the meantime, some Board members were of the opinion that elevation of the level of the School to a collegiate status might be more productive in bringing about improved support and general acceptance for DIS on the part of the Services. However, it was decided not to push any recommendation concerning the redesignation of the School as a College at this time, but rather to defer action until a subsequent meeting of the Board when clarification of General Bennett's views on this matter could be provided. (Consensus)

c. The need for improved public relations was advanced by several Board members. A hard-sell campaign to promote both the School and its programs should be undertaken within DIA and DoD. Frequent briefings and seminars with the consumers could apprise them of new developments at DIS. Another potentially successful way to publicize the School in general and intelligence in particular would be to hold luncheons with members of the news media, Congress, and the Services. These luncheon meetings with discussion of intelligence successes and endeavors would promote understanding and appreciation for the unheralded and unrecognized role of Defense Intelligence in our national security. (General Byers and Professor Kirkpatrick)

7. Future Role of the Board

a. The Board reiterated its desire to be of assistance to the School and Agency in an advisory capacity throughout the year. Members asked that they be contacted to help in resolving any problem as it arises, and stressed that they were only a phone call away from the Commandant. (Consensus)

b. The Board also requested that it receive short periodic reports throughout the year in order to keep the members updated on significant events which transpire between meetings. (Admiral Burke)

c. Members also requested that copies of the new IITP curriculum, when available, be sent them for their review and comment. Similarly, the Board expressed interest in previewing any cassette recordings which might be made in the future about the School or portions of its curriculum. (Professor Kirkpatrick and Dr. Teller)

d. A tighter, fuller schedule was requested for future meetings, with less social amenities and more time devoted to student interviews and examination of School problem areas. It was suggested that Board-student sessions be conducted in private without the presence of DIS faculty or staff in order to permit a full, uninhibited exchange of views. (Admiral Burke, General Byers, and Dr. McKean)

SUMMARY

Other than making official record of its observations and suggestions as noted above for improvement of various aspects of the School operation, the Board of Visitors withheld any recommendations pending a special meeting to take into consideration the aforementioned problems related to the Information Science Center. Any subsequent recommendations relative to the ISC would be contained in the supplemental report of the Board.

In conclusion, the members wish to express their gratitude to General Bennett and Admiral Showers for the whole hearted support and backing of the DIA Command Element to the Board of Visitors. Likewise, the Board desires to commend Captain Fuller and the staff of the Defense Intelligence School for their meticulous and careful planning to ensure a successful meeting; to raise problem areas in an honest, forthright manner; and to permit a free and open exchange of views between Board members, students and faculty. It is the opinion of the Board that the School is continuing to move forward in its quest for academic excellence, not withstanding certain difficulties which are normal in the evolutionary growth of all new educational institutions as well as beyond the School's ability to control.

(s) Charles P. Cabell)
CHARLES P. CABELL

(s) Clovis E. Byers --
CLOVIS E. BYERS

(s) Arleigh A. Burke
ARLEIGH A. BURKE

(s) James C. Fletcher
JAMES C. FLETCHER

(s) Edward Katzenbach
EDWARD KATZENBACH

(s) Lyman B. Kirkpatrick, Jr.
LYMAN B. KIRKPATRICK, JR.

(s) Hugh F. McKean
HUGH F. MCKEAN

(s) Edward Teller
EDWARD TELLER

AGENDA

BOARD OF VISITORS MEETING
DEFENSE INTELLIGENCE SCHOOL

23-24 MARCH 1970

Mon. 23 March

<u>Time</u>	<u>Place</u>	<u>Activity</u>
0845	Dir Conf Room	Board Assembles; Introductions
0900	Dir Conf Room	Meet DR, DD, CS; Opening Remarks by DR and Discussion
0945		Coffee
1000	Dir Conf Room	Executive Session
1130		Depart Pentagon for Fort McNair
1200	McNair Room Officers Open Mess Fort McNair	Lunch
1330 (about)		Depart Fort McNair for DIS
1400	DIS	Interview students
1515	DIS	Individual Administration (Travel and per diem)
1530	DIS	Board Recesses

Tues. 24 March

0730	Officers Closed Mess, U.S. Naval Station	Working Breakfast
0830	DIS	Executive Session
1000	DIS	Board prepares Report
1130	DIS	Exit interview with DR and Commandant, DIS
1200	DIS	Board adjourns

Enclosure 1

SUPPLEMENTAL REPORT
CONCERNING THE
INFORMATION SCIENCE CENTER

BOARD OF VISITORS
DEFENSE INTELLIGENCE SCHOOL

16 May 1970

SUPPLEMENTAL REPORT
ON THE INFORMATION SCIENCE CENTER
OF THE DEFENSE INTELLIGENCE SCHOOL

BACKGROUND

It was agreed at the regular meeting of the Defense Intelligence School (DIS) Board of Visitors, which was held on 23-24 March 1970, that a special committee should reconvene in mid-April to review in greater detail the Information Science Center (ISC). This decision was reached as a result of several considerations which were noted during the March meeting. Initially, Lieutenant General Donald V. Bennett, Director, Defense Intelligence Agency (DIA) in his welcoming remarks to the Board singled out the ISC as one major area within the School requiring close attention. Subsequently, during its meeting, a two man team from the Board of Visitors interviewed ISC students and determined that there were criticisms of the then on-going pilot course of studies. The director of the ISC, Mr. Henry DeFrancesco, later was questioned by the entire Board about his program and stated that no clear objective had been laid out for his Center. On the basis of the foregoing, the Board concluded that another special session would be desirable in order to gain a better insight into the role of the ISC at the School and to evaluate its program. Several members indicated their willingness to serve as an ad hoc group in this matter and to reassemble at an early date.

On 13 April 1970, the following five members of the Board of Visitors met in special session on the ISC:

General Charles P. Cabell, USAF (Ret), Chairman

Lieutenant General Clovis E. Byers, USA (Ret), Vice-Chairman

Admiral Arleigh A. Burke, USN (Ret)

Professor Lyman B. Kirkpatrick, Jr., Brown University

Dr. Edward Teller, University of California

The purpose of the meeting was three-fold:

1. To obtain an understanding of the role and mission of the ISC;
2. To clarify the Center's instructional objectives; and
3. To review the curriculum of the Center's pilot course "Information Science in Support of Intelligence Functions."

AGENDA

The committee assembled at 0730 hours for a continental breakfast, during which the members were briefed by Major General Robert Taylor, USAF (Ret), Chairman of the Intelligence Information Handling Committee (IHC) of the United States Intelligence Board (USIB). His briefing covered the history and origins of the ISC beginning with the expressed concern of the President's Foreign Intelligence Advisory Board (PFIAB) in 1964 over the lack of trained intelligence personnel in information science technology; continuing with the correspondence between the Director, Central Intelligence (DCI) and Secretary, Department of Defense (DoD) in early 1967 recommending the location of the ISC at DIS; tasking of DIA and DIS by DoD for this new mission later in 1967; and culminating in the Center's ultimate establishment in

December 1967. General Taylor then reviewed the role of the IHC and its sub-committee on education with regard to the selection of the initial course offerings to be taught at ISC and guidance provided to the ISC in this connection. Together with the Director, ISC, the IHC decided that the Center with its present resources should develop and present one regular program of instruction, "Information Science in Support of Intelligence Functions," and a 3 week survey course on Intelligence Information Systems. General Taylor emphasized that the Center's mission was to train personnel from all member agencies of the U.S. intelligence community.

Following discussion of General Taylor's remarks by the Board, Mr. DeFrancesco reviewed the manpower, equipment and fiscal requirements which were developed on a time-phased basis in order to operate the Center in accordance with the initial requirements of the establishing documents. He pointed out that he is operating the Center with a total of 9 personnel, two of whom provide administrative assistance. If neither he nor Captain Richard Bates, USN, Assistant Director of the Center, is included in this number, this leaves the ISC with a total instructional staff of 5 persons. Recognizing the inadequacy of this faculty to cover the spectrum of intelligence functions, Mr. DeFrancesco noted that he had made repeated efforts to obtain either additional full-time employees or temporary duty assignments of personnel from elsewhere in the intelligence community, but had met with virtually no success to date. He estimated the current cost of operating the Center (including salaries, equipment, guest lecturer fees, etc.) at about \$450,000 annually. He concluded his presentation

by answering questions about the curriculum of the first pilot 8 week course on "Functions" which had been concluded two weeks previously.

Rear Admiral Donald M. Showers, Chief of Staff, DIA, then observed that although DIA had provided all resources received by the ISC to date and was sympathetic to the Center's stated needs, the ISC overall is only one of many problems faced by DIA and unfortunately does not stand at the top of the priorities established within the Agency. He said that earlier DIA plans called for the establishment and co-location of an Experimental Research Facility (ERF) with the ISC which would have enhanced the Center's operation through related original research in this field. The proposed ERF, however, required too much money and too many people and never reached fruition. Admiral Showers then asked [] DIA, to brief Board members on an example where the application of information science technology to a real world intelligence problem resulted in more, better and faster intelligence at a considerable reduction in cost. [] presentation concluded the formal portion of the meeting, and the members of the Board of Visitors then went into Executive Session.

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BOARD DISCUSSION AND OBSERVATIONS

After reviewing the establishment of the ISC and the implementing directives, the Board concluded that the charter of the Center is quite explicit as to its mission. This mission however appears to have been bureaucratically arrived at and nominally accepted without adequate justification. In this connection the Board members felt the key question which still remained unanswered to their satisfaction was "Is there a valid, proven need for the Center?"

Several members expressed doubt whether the Intelligence Community

really wanted a joint educational program and felt that clarification of this requirement was perhaps the first order of business.

Another related question which the Ad Hoc Committee of the Board sought unsuccessfully to find an answer to was "What are the educational objectives of the Center?" The Board found that the mission in general had not been translated into clearly defined and easily understood instructional objectives. In the current state of development of information science related to intelligence, its primary role at the Center should be the application of the knowledge that already exists in this field to intelligence. The Board could find little evidence that this had been done with the pilot program of instruction which ran from 2 February through 27 March.

In reviewing the pilot curriculum of the Functions Course, the consensus was that the instruction fell short on a variety of accounts and that some of the previously noted student criticisms were valid. It was agreed that the pre-requisite package of study materials which was sent to all students in advance of the course probably was a tactical error. This packet of readings and programmed instructional materials was designed to provide through up to 140 hours of self-study a common background in mathematics for all students. It covered such areas as elementary logic, set theory, modern math, probabilities and statistics. The Board members felt that this package together with nearly one week of mathematics review early in the course tended to alienate and lose many of the students. In effect, the emphasis on mathematics appeared to overwhelm the student at an early stage with material whose importance and need were highly questionable.

Dr. Teller in particular believed that no more than two hours of mathematics were necessary and desirable for this course: one hour on an introduction to probabilities and one hour on general statistics.

Among the other course deficiencies cited perhaps the most significant was the apparent failure to relate the subject to intelligence. The Committee unanimously agreed that if the Center is to justify its existence, it should seek useful applications of information science technology directly related to the needs of the intelligence community. The extensive use of guest lecturers was also cited as not being the most effective means of bringing together and making relevant the diverse content of this specialized subject. The heavy emphasis on operations analysis (nearly 50% of the pilot course) was also thought to be out of proportion to the total curriculum. The members of the Board felt that greater emphasis should be given to computer data processing, storage and retrieval; practical intelligence applications; and the use of real world case studies. Original research should be added as resources become available, and the results integrated into the courses.

The adequacy of resources to operate the ISC also was of major concern to the Board. In particular, the members expressed concern at the lack of support being given by the Community to the Center which was established to serve the needs of all U.S. intelligence agencies. The initial authorization of 9 billets from DIA resources to staff the Center and provide the faculty necessary to develop one course of instruction appeared hardly sufficient for the purpose of teaching data handling only. The personnel allocations are however grossly inadequate to carry out resource management, do

future planning, undertake any new courses of instruction, or conduct related research. The resources which are required to implement the total program as envisioned by the original documentation would certainly require far more support than DIA alone is capable of providing. It was noted in this connection that establishment of the ISC at DIS had been done only at the expense and curtailment of other programs and activities within the School. More than half of the School's current fiscal year budget constituted ISC expenditures, thereby dropping the amount available to the rest of the School to its lowest level since 1965. On the other hand, the Board reflected that there are adequate assets in the Intelligence Community to support this effort; and both a joint budget and joint staffing on an equitable basis among the Community members would appear the logical solution to this common Community problem. However, the Board expressed reservation that the individual agencies to date appear to prefer to operate on their own without pooling their efforts or making any contributions to support DIS. Doubt was again expressed as to whether a majority of agencies really wanted or required the ISC.

To several members of the Board of Visitors, the current cost of operating the ISC seemed prohibitive for the results obtained to date or to be gained in the foreseeable future. General Cabell observed that "the Center is not operating at satisfactory efficiency"; while Professor Kirkpatrick noted that it seemed "an utter waste of manpower and money to continue the program on its present basis." Both Admiral Burke and General Byers emphasized that if, after reexamination

of its need, the ISC is to continue with its present limited resources, the Center should cut-back on the scope of its activities and plan for maximum efficiency of operation within existing resources. General Cabell expressed complete agreement with these points. In the opinion of these Board members, the ISC should develop a clear cut plan of operation for next year based upon present resources, defer all long range planning, and acquaint all elements of the Community with what can and cannot be done with its limited faculty, finances, and facilities. Efforts should be concentrated on developing only one course; and until such time as that one course is well received, other planning and research activities should be held in abeyance.

A SUGGESTED CREED FOR THE USE OF THE COMPUTER IN INTELLIGENCE¹

At the present time, the support given to the Information Science Center by the Community, is grossly inadequate. Without better support it cannot render an effective service. The causes for the lack of support go beyond the mere shortages of resources available. Lacking is an intellectual acceptance of a view that the Center is required. Behind that is the lack, within the Community, of anything like agreement as to the value or the role of the computer in the intelligence process.² If such is the case, how credible is the Center as a trainer of those who are to be used as practitioners of an unagreed upon or unaccepted science?

¹The remarks contained in this section were originally proposed by General Cabell and were subsequently concurred with by the other 4 members who participated in the Supplemental Meeting of 13 April 1970.

²Enclosure 1 contains the thoughts of Dr. Teller on this subject.

It seems that what is needed is a reorientation of the role of the Center away from that of being essentially a training facility, to that of being both a research and development facility to find more and better ways of making possible the great contribution the computer can make to intelligence as well as a training facility. However, at the moment, there are not accepted principles beyond that concerning data handling, to provide the basis for the instruction to be given by the Center. Whereas the Center's instruction in data handling should form a prominent part of its curriculum, that is not enough to justify continuation of the facility. There are older and satisfactory on-going schools within the Community which do this. A broader charter needs to be given to the Center if it is to be justified. That charter should include research and development of new techniques for computer use. The Board has seen no evidence that there is such a facility elsewhere within the Community. However, the Center would require guidance in carrying out such a role. Doctrine developed would require ratification.

What is needed is some sort of a "Creed for the Use of the Computer in Intelligence," agreed to by the Community for the guidance of the Center in a reoriented mission to develop techniques for computer utilization, and then to instruct in those techniques.

Such a "Creed" is necessary for the orderly development of the computer in intelligence. Otherwise, the program and the opportunity will in default be left in the untrustworthy hands of a mixture of

extremists: the zealots and the skeptics. Included among the "zealots" are those statisticians and mathematicians who, in the present state of the art, are willing to turn over too much of the complex intelligence problem for solution through techniques of "quantification." An appropriate "Creed" might be the following:

The Computer in Intelligence

1. The computer is a tool of current major importance in the intelligence process. It has attained the status of a basic necessity in the field of storing and retrieving the masses of data now being received. Efforts within the Community to further such use and to increase its efficiency should be encouraged.

2. The potential of the computer as an intelligence tool is almost unlimited. Not only can the analyst and the photographic interpreter be relieved of much drudgery, loss of time, and some possible oversights, through more complete exploitation of data retrieval, but the analyses themselves might be supported by such things as computer-derived comparison of alternate^{iv} courses of action. Thus the analytical process itself may be susceptible to support on an ever-increasing scale as techniques are developed. It should be the aim of the Community to press for the development of new techniques that will continue to further the support which the computer might give, and to adopt such techniques as they are developed and approved.

SUMMARY OF FINDINGS

The Board of Visitors feels that the ISC has been inundated with varied, changing and ill-defined requirements; overall guidance has been poor; costs have been excessive for dubious results; while moral and practical support by the Intelligence Community, other than DIA, has been noticeably lacking. Despite the best efforts of the limited resources now available at the Center, it reflects credit neither on the DIS nor the intelligence system.

RECOMMENDATIONS

1. DIA should advise USIB that unless adequate assistance both in personnel and finances is forthcoming from the other intelligence agencies, DIA intends to disband the ISC and drop the related course from the DIS.

2. If the ISC receives the required joint support, there should be an accompanying redefinition and, if necessary, reorientation of the Center's mission to provide Community approved guidance and direction in the formulation of instructional objectives and academic programs.

(s) Charles P. Cabell
CHARLES P. CABELL

(s) Clovis E. Byers
CLOVIS E. BYERS

(s) Arleigh A. Burke
ARLEIGH A. BURKE

(s) Lyman B. Kirkpatrick, Jr.
LYMAN B. KIRKPATRICK, JR.

(s) Edward Teller
EDWARD TELLER

STATEMENT PREPARED BY DR. EDWARD TELLER REGARDING THE ROLE OF THE
COMPUTER IN INTELLIGENCE

It is my opinion that the computers can serve as powerful tools of data storage and retrieval, and I believe that they can be also used in intelligence work. This use will be fruitful in proportion to the accessibility of the computers, to the personnel working on intelligence and in proportion to the appreciation of the limitations of the power of computers.

Computers may further play an important role in work on pattern-recognition. This is work with obvious bearing on the intelligence mission. At the same time, pattern recognition by computers is an unsolved problem of great difficulty. What can be done is to use computers to keep track of the change in patterns after employing certain corrections which can indeed be carried out by computers.

There may be other examples in which computers can be of very great help. On the other hand, there is a field in which the usefulness of computers has been overemphasized, in my opinion. This is in the field of operational analysis and the connected field of linear programming. During the seven years which McNamara spent in the Pentagon this type of work was too often substituted for more balanced judgement. The influence of these seven years still exists, which is probably undesirable. I am afraid that this approach may have been at work to some extent when education in the use of computers was planned at the Defense Intelligence School.

I recognize that my last remarks touch on highly controversial matters and I realize that I may be wrong. At the same time, I feel that this point needs particularly careful thought.

(s) Edward Teller

EDWARD TELLER

Professor of Physics-at-Large
Lawrence Radiation Laboratory
University of California
6 May 1970

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